

		Deep Red pummelo		Reinking pummelo		Tahiti pummelo		Chandler pummelo	
		Peel	Pulp	Peel	Pulp	Peel	Pulp	Peel	Pulp
Coumarins									
Umbelliferone									
Osthols		16.66 ± 3.83	0.18 ± 0.08	8.92 ± 3.27	Traces	22.18 ± 9.81	Traces	1.46 ± 0.39	Traces
Aurapten		7.15 ± 0.47	2.98 ± 1.31	15.17 ± 7.62	1.46 ± 0.68	16.87 ± 4.29	Traces	39.34 ± 15.12	2.12 ± 0.88
Epoxyaurapten		21.99 ± 2.50		60.34 ± 8.17		133.19 ± 25.75	Traces	10.45 ± 1.46	
Limettin				2.86 ± 0.45		2.56 ± 0.79	2.79 ± 0.86	1.96 ± 0.12	
5-geranyloxy-7-methoxycoumarin				Detected		Detected			
Furanocoumarins									
Psoralen						Traces			
Bergaptol				Traces				13.83 ± 2.11	Traces
Bergapten								26.80 ± 7.28	Traces
Isoimperatorin		27.95 ± 8.41	132.66 ± 40.93	74.66 ± 33.80	26.26 ± 8.22	Traces	Traces	0.90 ± 0.12	0.59 ± 0.07
Oxypeucedanin		31.22 ± 10.29	4.96 ± 2.58	34.12 ± 5.54	17.02 ± 8.95	0.68 ± 0.16	0.77 ± 0.28		
Oxypeucedanin hydrate		9.98 ± 0.67	21.74 ± 7.52	9.51 ± 2.77	25.67 ± 3.63				
Bergamottin		0.24 ± 0.05	0.46 ± 0.19	3.24 ± 1.03	Traces	14.66 ± 6.76	2.62 ± 1.83	1.48 ± 0.75	12.33 ± 5.67
Epoxybergamottin		9.31 ± 3.00		82.41 ± 37.55	Traces	77.31 ± 20.18	21.03 ± 9.58	10.76 ± 1.19	5.28 ± 1.06
6',7'-dihydroxybergamottin		13.36 ± 3.07	19.45 ± 7.01	34.55 ± 10.84	6.59 ± 2.18	108.56 ± 40.20	24.42 ± 12.07	60.27 ± 4.52	38.14 ± 6.77
Xanthotoxin cluster									
Xanthotoxol									
Xanthotoxin									
Imperatorin				Traces		21.33 ± 1.48			
Heracelinin									
Heracleol									
8-geranyloxypsoralen		1.47 ± 0.05	2.43 ± 0.75	4.02 ± 0.95	Traces	15.29 ± 8.18	Traces	2.59 ± 0.63	2.52 ± 0.96
Isopimpinellin cluster									
Isopimpinellin				3.26 ± 0.67	Traces	Traces	Traces	0.54 ± 0.05	Traces
Phellopterin		0.65 ± 0.19							
Byakangelicol									
Byakangelicin									
Cnidilin				0.71 ± 0.15	Traces				
Cnidicin		9.20 ± 2.14	24.46 ± 5.30	14.17 ± 1.94	9.63 ± 4.25				
TOTAL (mg.kg ⁻¹)		149.18	223.67	343.97	107.96	391.30	51.63	170.38	60.98

		Sans pépin pummelo		Kao Pan pummelo		Pink pummelo	
		Peel	Pulp	Peel	Pulp	Peel	Pulp
Coumarins							
Umbelliferone				Traces			
Osthols		27.84 ± 8.70	0.19 ± 0.06	1.69 ± 0.63	Traces	20.69 ± 6.25	Traces
Aurapten		11.28 ± 4.91	0.36 ± 0.12	33.46 ± 9.80	0.69 ± 0.16	41.92 ± 16.85	9.09 ± 4.04
Epoxyaurapten		11.99 ± 2.77		39.78 ± 9.29		32.20 ± 14.87	
Limettin		1.68 ± 0.48		Traces		1.96 ± 0.57	
5-geranyloxy-7-methoxycoumarin		Detected					
Furanocoumarins							
Psoralen							
Bergaptol			2.38 ± 0.68				Traces
Bergapten				20.58 ± 3.58		22.91 ± 2.58	12.09 ± 2.19
Isoimperatorin		67.61 ± 13.52	88.39 ± 51.26				Traces
Oxypeucedanin		37.38 ± 6.62	5.08 ± 1.42	Traces	0.33 ± 0.07	Traces	0.60 ± 0.13
Oxypeucedanin hydrate		11.68 ± 5.08	4.50 ± 1.71				1.46 ± 0.65
Bergamottin		0.20 ± 0.09	0.09 ± 0.04	0.58 ± 0.20	6.77 ± 2.64	2.55 ± 0.88	17.89 ± 8.11
Epoxybergamottin		11.30 ± 5.80	Traces	51.57 ± 17.58	Traces	17.35 ± 2.85	Traces
6',7'-dihydroxybergamottin		18.34 ± 8.02	5.61 ± 2.05	56.03 ± 22.27	34.41 ± 12.23	50.40 ± 8.55	149.97 ± 68.00
Xanthotoxin cluster				4.71 ± 2.09			
Xanthotoxol							
Xanthotoxin							
Imperatorin				Traces		1.75 ± 0.29	3.52 ± 0.70
Heracelinin							
Heracleol							
8-geranyloxypsoralen							
Isopimpinellin cluster							
Isopimpinellin				Traces		Traces	Traces
Phellopterin							
Byakangelicol							
Byakangelicin							
Cnidilin				Traces			
Cnidicin				12.53 ± 2.41			
TOTAL (mg.kg ⁻¹)		199.30	123.84	207.71	42.20	191.73	194.62

Tables A. Concentration (in mg.kg⁻¹ fresh weight ± standard deviation) of the coumarins and the furanocoumarins in the pummelos peel and pulp extracts. The mention « Traces » is used for compounds that could be detected but not quantitated (3 < S/N < 10) while « Detected » is used when 5-geranyloxy-7-methoxycoumarin was identified in the samples.

	Corsican citron		Etrog citron		Buddha's Hand citron	
	Peel	Pulp	Peel	Pulp	Peel	Pulp
Coumarins						
Umbelliferone		0.20 ± 0.01				
Osthol						
Aurapten	0.56 ± 0.08	0.40 ± 0.15	0.49 ± 0.11	0.36 ± 0.07	0.68 ± 0.21	
Epoxyaurapten						
Limettin	3.92 ± 0.54	0.66 ± 0.09	198.95 ± 20.55	1.33 ± 0.09	152.25 ± 24.24	
5-geranyloxy-7-methoxycoumarin	Detected	Detected	Detected	Detected	Detected	
Furanocoumarins						
Psoralen						
Bergaptol						
Bergapten	2.57 ± 0.44	0.35 ± 0.02	8.83 ± 2.30	0.85 ± 0.18	6.54 ± 0.83	
Isoimperatorin	0.96 ± 0.09	Traces	4.44 ± 0.87	Traces	3.09 ± 0.81	
Oxypeucedanin	1.32 ± 0.22	0.42 ± 0.02	40.84 ± 9.30	0.19 ± 0.00	13.83 ± 3.67	
Oxypeucedanin hydrate	0.48 ± 0.08	0.21 ± 0.05	16.47 ± 3.72	0.16 ± 0.01	6.18 ± 0.64	
Bergamottin						
Epoxybergamottin						
6',7'-dihydroxybergamottin						
Xanthotoxin cluster						
Xanthotoxol						
Xanthotoxin						
Imperatorin	3.95 ± 0.96	0.26 ± 0.06	2.98 ± 0.89	0.21 ± 0.02	Traces	
Heraclenin	18.79 ± 2.68	0.21 ± 0.05	4.15 ± 1.57	Traces	0.66 ± 0.15	
Heraclenol	7.23 ± 1.40		7.44 ± 1.20		Traces	
8-geranyloxypsoralen						
Isopimpinellin cluster						
Isopimpinellin	1.78 ± 0.16	0.33 ± 0.03	5.30 ± 0.50	0.68 ± 0.05	6.66 ± 0.51	
Phellopterin	5.10 ± 0.75	Traces	15.91 ± 2.67		1.94 ± 0.15	
Byakangelicol	13.33 ± 2.85	0.06 ± 0.01	34.86 ± 9.17		10.11 ± 1.21	
Byakangelicin	22.40 ± 5.92		29.38 ± 12.05		Traces	
Cnidilin						
Cnidicin		Traces	5.10 ± 1.22		Traces	
TOTAL (mg.kg ⁻¹)	82.39	3.10	375.14	3.78	201.94	

Table B. Concentration (in mg.kg⁻¹ fresh weight ± standard deviation) of the coumarins and the furanocoumarins in the citrons peel and pulp extracts. The mention « Traces » is used for compounds that could be detected but not quantitated (3 < S/N < 10) while « Detected » is used when 5-geranyloxy-7-methoxycoumarin was identified in the samples. No data could be obtained for the pulp of Buddha's hand citron as the fruits of this citrus species did not contain pulp.

	Micrantha		Combava		Ichang papeda	
	Peel	Pulp	Peel	Pulp	Peel	Pulp
Coumarins						
Umbelliferone						
Osthol						
Aurapten	4.03 ± 1.43	1.66 ± 0.49	1.00 ± 0.09	0.52 ± 0.10	1.45 ± 0.65	1.57 ± 0.85
Epoxyaurapten						
Limettin	2.93 ± 0.42	2.27 ± 0.43	14.39 ± 3.52	4.92 ± 0.43	11.16 ± 2.99	2.65 ± 0.38
5-geranyloxy-7-methoxycoumarin	Detected	Detected	Detected	Detected	Detected	Detected
Furanocoumarins						
Psoralen			Traces	0.19 ± 0.02		
Bergaptol	21.54 ± 10.22	13.31 ± 3.06	25.85 ± 8.59	57.98 ± 2.64		
Bergapten	728.32 ± 165.98	32.41 ± 8.66	17.28 ± 4.12	4.86 ± 0.64	7.58 ± 1.81	1.53 ± 0.53
Isoimperatorin	21.61 ± 3.43	1.46 ± 0.41	18.36 ± 3.61	3.65 ± 0.53		
Oxypeucedanin	274.97 ± 93.72	6.19 ± 1.87	895.14 ± 65.03	16.97 ± 1.39	Traces	0.31 ± 0.07
Oxypeucedanin hydrate	71.52 ± 11.68	19.40 ± 7.38	107.49 ± 14.01	95.12 ± 14.69		
Bergamottin	47.23 ± 10.57	28.49 ± 11.65	23.07 ± 3.19	29.40 ± 1.92	Traces	0.28 ± 0.11
Epoxybergamottin	108.42 ± 44.67	12.43 ± 3.11	485.91 ± 23.72	53.70 ± 7.92		
6',7'-dihydroxybergamottin	111.39 ± 19.60	28.08 ± 10.60	314.38 ± 51.12	82.63 ± 19.44		
Xanthotoxin cluster						
Xanthotoxol	4.37 ± 1.52	3.90 ± 1.46				
Xanthotoxin	32.26 ± 5.26	6.87 ± 2.18	0.47 ± 0.15			
Imperatorin		Traces				
Heraclenin						
Heracleol						
8-geranyloxypsoralen	420.99 ± 195.40	70.78 ± 22.45				
Isopimpinellin cluster						
Isopimpinellin	694.07 ± 298.76	65.63 ± 19.96	5.33 ± 1.03	2.12 ± 0.47	5.09 ± 0.49	2.09 ± 0.70
Phellopterin	13.51 ± 2.69	3.90 ± 0.37				
Byakangelicol	107.27 ± 37.92	5.56 ± 0.95				
Byakangelicin						
Cnidilin	113.40 ± 16.07	13.10 ± 4.23				
Cnidicin						
TOTAL (mg.kg ⁻¹)	2777.83	315.44	1908.67	352.06	25.28	8.43

Table C. Concentration (in mg.kg⁻¹ fresh weight ± standard deviation) of the coumarins and the furanocoumarins in the papedas peel and pulp extracts. The mention « Traces » is used for compounds that could be detected but not quantitated (3 < S/N < 10) while « Detected » is used when 5-geranyloxy-7-methoxycoumarin was identified in the samples.

		Willowleaf mandarin		Fuzhu mandarin		San Hu Hong Chu mandarin		Nan Feng Mi Ju mandarin	
		Peel	Pulp	Peel	Pulp	Peel	Pulp	Peel	Pulp
Bergaptene cluster	Coumarins								
	Umbelliferone								
	Osthols								
	Aurapten	Traces		0.31 ± 0.11	0.11 ± 0.02	0.30 ± 0.07	0.14 ± 0.04	1.41 ± 0.24	0.29 ± 0.07
	Epoxyaurapten	1.18 ± 0.28	0.25 ± 0.06	5.44 ± 1.00	0.59 ± 0.19	3.68 ± 1.70	0.52 ± 0.13	3.17 ± 0.47	0.35 ± 0.02
	Limettin			Detected		Detected		Detected	
	5-geranyloxy-7-methoxycoumarin								
	Furanocoumarins								
	Psoralen								
	Bergaptol								
Xanthotoxin cluster	Bergapten	Traces		4.72 ± 0.77	0.81 ± 0.06	3.74 ± 1.82	0.49 ± 0.07	2.71 ± 0.57	0.30 ± 0.06
	Isoimperatorin	0.36 ± 0.05	0.22 ± 0.05	1.95 ± 0.44	0.20 ± 0.04	1.42 ± 0.64	0.15 ± 0.01	1.15 ± 0.06	0.22 ± 0.02
	Oxypeucedanin						0.32 ± 0.05		
	Oxypeucedanin hydrate						0.07 ± 0.03		
	Bergamottin			0.36 ± 0.14	0.06 ± 0.03				
Isopimpinellin cluster	Epoxybergamottin								
	6',7'-dihydroxybergamottin								
	Xanthotoxol								
	Xanthotoxin								
	Imperatorin								
Isopimpinellin cluster	Heraclenin								
	Heracleol								
	8-geranyloxypsoralen								
	Isopimpinellin	Traces		2.69 ± 0.32	0.55 ± 0.18	2.11 ± 0.95	0.33 ± 0.03	5.02 ± 0.42	1.88 ± 0.36
	Phellopterin								
Isopimpinellin cluster	Byakangelicol								
	Byakangelicin								
	Cnidilin								
	Cnidicin								
TOTAL (mg.kg ⁻¹)		1.54	0.47	15.47	2.32	11.25	2.02	13.46	3.42

		Beauty mandarin		Dancy mandarin		Wase Satsuma		Owari Satsuma	
		Peel	Pulp	Peel	Pulp	Peel	Pulp	Peel	Pulp
Bergaptene cluster	Coumarins								
	Umbelliferone								
	Osthols								
	Aurapten								
	Epoxyaurapten								
	Limettin	1.53 ± 0.47	0.27 ± 0.13	7.97 ± 0.52	0.53 ± 0.12	2.11 ± 0.25	0.43 ± 0.08	2.93 ± 0.47	0.43 ± 0.15
	Furanocoumarins								
	Psoralen								
	Bergaptol								
	Bergapten	Traces		4.85 ± 0.40	Traces	2.12 ± 0.30	0.56 ± 0.06	2.54 ± 0.17	Traces
Xanthotoxin cluster	Isoimperatorin	0.35 ± 0.09	0.34 ± 0.10	Traces	Traces	0.88 ± 0.13	0.25 ± 0.04	1.06 ± 0.05	0.28 ± 0.04
	Oxypeucedanin						Traces		
	Oxypeucedanin hydrate								
	Bergamottin								
	Epoxybergamottin								
Isopimpinellin cluster	6',7'-dihydroxybergamottin								
	Xanthotoxol								
	Xanthotoxin								
	Imperatorin								
	Heraclenin								
Isopimpinellin cluster	Heracleol								
	8-geranyloxypsoralen								
	Isopimpinellin	Traces		2.37 ± 0.13	0.27 ± 0.04	1.10 ± 0.14	0.36 ± 0.03	1.41 ± 0.08	0.34 ± 0.09
	Phellopterin								
	Byakangelicol								
Isopimpinellin cluster	Byakangelicin								
	Cnidilin								
	Cnidicin								
TOTAL (mg.kg ⁻¹)		1.88	0.61	15.19	0.80	6.84	2.66	11.31	2.30

		Sunki mandarin		Shekwascha mandarin		Cleopatra mandarin	
		Peel	Pulp	Peel	Pulp	Peel	Pulp
Bergaptene cluster	Coumarins						
	Umbelliferone						
	Osthols						
	Aurapten			Traces	0.73 ± 0.37	0.18 ± 0.05	
	Epoxyaurapten						
	Limettin	5.30 ± 0.20	0.86 ± 0.17	11.23 ± 5.70	Traces	0.55 ± 0.17	Traces
	5-geranyloxy-7-methoxycoumarin					Detected	Detected
	Furanocoumarins						
	Psoralen						
	Bergaptol						
Xanthotoxin cluster	Bergapten	3.86 ± 0.60	0.68 ± 0.05	23.00 ± 11.51	0.80 ± 0.08	0.50 ± 0.14	
	Isoimperatorin	0.61 ± 0.15	0.13 ± 0.01	2.18 ± 1.33		0.79 ± 0.18	0.33 ± 0.04
	Oxypeucedanin					0.73 ± 0.31	
	Oxypeucedanin hydrate					0.16 ± 0.04	
	Bergamottin						
Isopimpinellin cluster	Epoxybergamottin						
	6',7'-dihydroxybergamottin						
	Xanthotoxol						
	Xanthotoxin			Traces			
	Imperatorin						
Isopimpinellin cluster	Heraclenin						
	Heracleol						
	8-geranyloxypsoralen						
	Isopimpinellin	1.52 ± 0.22	0.51 ± 0.03	5.73 ± 3.15	0.66 ± 0.11	0.23 ± 0.08	0.11 ± 0.01
	Phellopterin						
Isopimpinellin cluster	Byakangelicol						
	Byakangelicin						
	Cnidilin						
	Cnidicin						
TOTAL (mg.kg ⁻¹)		11.29	2.18	43.85	1.64	2.96	0.58

Tables D. Concentration (in mg.kg⁻¹ fresh weight ± standard deviation) of the coumarins and the furanocoumarins in the sweet and acidic mandarins peel and pulp extracts. The mention « Traces » is used for compounds that could be detected but not quantitated (3 < S/N < 10) while « Detected » is used when 5-geranyloxy-7-methoxycoumarin was identified in the samples.

		Duncan grapefruit		Marsh grapefruit		Star Ruby grapefruit	
		Peel	Pulp	Peel	Pulp	Peel	Pulp
Coumarins							
Umbelliferone		2.79 ± 0.50		3.38 ± 0.85		2.90 ± 1.16	
Osthol		3.24 ± 0.47	Traces	3.94 ± 1.25	0.09 ± 0.02	5.13 ± 2.03	0.12 ± 0.04
Aurapten		10.89 ± 6.37	2.28 ± 0.31	36.34 ± 15.93	1.66 ± 0.77	38.51 ± 25.07	3.80 ± 1.54
Epoxyaurapten		4.69 ± 0.82	2.95 ± 0.39	35.96 ± 9.53	Traces	32.58 ± 6.71	Traces
Limettin		1.23 ± 0.07		1.08 ± 0.30	Traces	1.71 ± 0.68	
5-geranyloxy-7-methoxycoumarin		Detected		Detected		Detected	
Furanocoumarins							
Psoralen			0.36 ± 0.04		0.20 ± 0.11		0.27 ± 0.12
Bergaptol		17.73 ± 3.93	8.26 ± 2.27		3.91 ± 1.19		3.74 ± 0.99
Bergapten		3.10 ± 0.65	Traces	1.13 ± 0.41	Traces	1.54 ± 0.66	1.19 ± 0.22
Isoimperatorin		Traces	Traces	Traces	Traces		Traces
Oxypeucedanin		0.71 ± 0.08	0.44 ± 0.04	0.76 ± 0.33	0.29 ± 0.10	0.62 ± 0.24	0.35 ± 0.04
Oxypeucedanin hydrate							
Bergamottin		1.87 ± 1.11	26.53 ± 5.40	6.55 ± 1.99	10.46 ± 2.62	12.67 ± 4.03	13.70 ± 4.81
Epoxybergamottin		4.94 ± 1.16	Traces	25.57 ± 9.09	4.46 ± 1.66	51.55 ± 21.46	3.43 ± 1.22
6',7'-dihydroxybergamottin		245.64 ± 51.95	175.13 ± 5.50	55.94 ± 15.80	34.21 ± 6.44	68.97 ± 26.28	20.82 ± 7.90
Xanthotoxin cluster	Xanthotoxol Xanthotoxin Imperatorin Heraclein Heraclenol 8-geranyloxypsoralen		Traces				
Isopimpinellin cluster	Isopimpinellin Phellopterin Byakangelic Byakangelicin Cnidilin Cnidicin	0.47 ± 0.05	Traces	0.38 ± 0.08	Traces	0.95 ± 0.21	0.14 ± 0.04
TOTAL (mg.kg ⁻¹)		297.30	215.95	171.03	55.28	217.13	47.88

Table E. Concentration (in mg.kg⁻¹ fresh weight ± standard deviation) of the coumarins and the furanocoumarins in the grapefruits peel and pulp extracts. The mention « Traces » is used for compounds that could be detected but not quantitated (3 < S/N < 10) while « Detected » is used when 5-geranyloxy-7-methoxycoumarin was identified in the samples.

	Washington Navel sweet orange		Shamouti sweet orange		Hamlin sweet orange		Pineapple sweet orange	
	Peel	Pulp	Peel	Pulp	Peel	Pulp	Peel	Pulp
Coumarins								
Umbelliferone	Traces	0.17 ± 0.01	0.14 ± 0.02	Traces	0.22 ± 0.04	0.20 ± 0.03		
Osthol								
Aurapten								
Epoxyaurapten								
Limettin	0.92 ± 0.13	Traces					6.15 ± 0.71	1.18 ± 0.18
5-geranyloxy-7-methoxycoumarin								
Furanocoumarins								
Psoralen								
Bergapten cluster								
Bergaptol	Traces						4.26 ± 0.40	
Bergapten								
Isoimperatorin								
Oxypeucedanin	0.73 ± 0.16	0.63 ± 0.10	0.41 ± 0.07	0.33 ± 0.01	0.53 ± 0.08	0.26 ± 0.03	Traces	Traces
Oxypeucedanin hydrate								
Bergamottin								
Epoxybergamottin								
6',7'-dihydroxybergamottin								
Xanthotoxin cluster								
Xanthotoxol								
Xanthotoxin								
Imperatorin								
Heraclein								
Heracelenol								
8-geranyloxysoralen							2.29 ± 0.56	0.58 ± 0.08
Isopimpinellin cluster								
Isopimpinellin								
Phellopterin								
Byakangelicol								
Byakangelicin								
Cnidilin								
Cnidicin								
TOTAL (mg.kg ⁻¹)	1.65	0.80	0.55	0.33	0.75	0.46	12.70	1.76

Table F. Concentration (in mg.kg⁻¹ fresh weight ± standard deviation) of the coumarins and the furanocoumarins in the sweet oranges peel and pulp extracts. The mention « Traces » is used for compounds that could be detected but not quantitated (3 < S/N < 10) while « Detected » is used when 5-geranyloxy-7-methoxycoumarin was identified in the samples.

		Maroc sour Orange		Bouquetier de Nice sour orange		Granito sour orange		Chinotto sour orange	
		Peel	Pulp	Peel	Pulp	Peel	Pulp	Peel	Pulp
Coumarins	Umbelliferone	14.89 ± 2.83	0.79 ± 0.18	21.22 ± 4.97	1.77 ± 0.32	19.96 ± 2.93	0.96 ± 0.36	11.29 ± 3.84	1.91 ± 0.51
	Osthol								
	Aurapten								
	Epoxyaurapten			2.89 ± 0.56		9.97 ± 4.07			3.17 ± 0.48
	Limettin								
	5-geranyloxy-7-methoxycoumarin	Detected	Detected	Detected	Detected	Detected	Detected	Detected	Detected
Furanocoumarins	Psoralen			Traces		0.35 ± 0.12		0.16 ± 0.02	
	Bergaptol			4.77 ± 1.42		6.72 ± 1.76		5.67 ± 2.22	
	Bergapten	17.87 ± 5.77	39.81 ± 14.23	21.75 ± 5.28	107.76 ± 46.02	41.92 ± 2.29	79.08 ± 34.97	15.43 ± 6.90	75.48 ± 20.37
	Isoimperatorin			2.79 ± 0.38	3.85 ± 0.72	Traces	7.65 ± 0.66	Traces	2.61 ± 0.69
	Oxypeucedanin			0.46 ± 0.12	0.28 ± 0.07	0.28 ± 0.02	0.68 ± 0.04	0.70 ± 0.05	0.45 ± 0.06
	Oxypeucedanin hydrate								0.22 ± 0.01
Bergapten cluster	Bergamottin	0.35 ± 0.11	1.68 ± 0.42	0.69 ± 0.12	2.08 ± 0.68	1.08 ± 0.23	2.98 ± 0.45	0.59 ± 0.25	0.18 ± 0.11
	Epoxybergamottin	22.05 ± 5.43	7.57 ± 1.19	27.82 ± 8.59	7.32 ± 2.80	48.09 ± 7.84	11.40 ± 2.20	13.29 ± 2.23	
	6',7'-dihydroxybergamottin	19.56 ± 3.76	11.26 ± 4.47	34.71 ± 9.09	23.29 ± 11.26	45.90 ± 4.72	20.96 ± 2.37	38.43 ± 15.78	10.68 ± 2.86
	Xanthotoxin								
	Xanthotoxin			Traces		Traces			
	Imperatorin								Traces
Xanthotoxin cluster	Heracelinin								
	Heracleol								
	8-geranyloxypsoralen								
	Isopimpinellin	Traces	Traces	Traces	Traces	Traces	Traces	Traces	Traces
	Phellopterin								
	Byakangelicol								
Isopimpinellin cluster	Byakangelicin								
	Cnidilin								
	Cnidicin								
TOTAL (mg.kg ⁻¹)		77.97	69.05	110.54	159.54	165.28	121.91	82.09	91.64

Table G. Concentration (in mg.kg⁻¹ fresh weight ± standard deviation) of the coumarins and the furanocoumarins in the sour oranges peel and pulp extracts. The mention « Traces » is used for compounds that could be detected but not quantitated (3 < S/N < 10) while « Detected » is used when 5-geranyloxy-7-methoxycoumarin was identified in the samples.

	Commune clementine		Murcott tangor		Bendiguangju		Fortune mandarin	
	Peel	Pulp	Peel	Pulp	Peel	Pulp	Peel	Pulp
Coumarins								
Umbelliferone	0.81 ± 0.19							
Osthol								
Aurapten	0.15 ± 0.03	0.14 ± 0.03					0.29 ± 0.03	
Epoxyaurapten								
Limettin								
5-geranyloxy-7-methoxycoumarin	3.16 ± 0.24	0.42 ± 0.05	Traces Detected	Detected	Detected	Detected	Traces Detected	Detected
Furanocoumarins								
Psoralen								
Bergaptol cluster								
Bergaptol								
Bergapten	3.15 ± 0.27	0.38 ± 0.03						
Isoimperatorin								
Oxypeucedanin	0.94 ± 0.19	0.15 ± 0.02	0.60 ± 0.03	0.36 ± 0.09	0.53 ± 0.08	0.28 ± 0.04	0.62 ± 0.08	0.33 ± 0.06
Oxypeucedanin hydrate	0.94 ± 0.27	0.34 ± 0.04						
Bergamottin								
Epoxybergamottin								
6',7'-dihydroxybergamottin								
Xanthotoxin cluster								
Xanthotoxol								
Xanthotoxin								
Imperatorin								
Heraclein								
Heracleol								
8-geranyloxyxpsoralen								
Isopimpinellin cluster								
Isopimpinellin	1.40 ± 0.26	0.28 ± 0.01	Traces				Traces	
Phellopterin								
Byakangelicol								
Byakangelicin								
Cnidilin								
Cnidicin								
TOTAL (mg.kg ⁻¹)	10.55	1.71	0.60	0.36	0.53	0.28	0.91	0.33

Table H. Concentration (in mg.kg⁻¹ fresh weight ± standard deviation) of the coumarins and the furanocoumarins in the small mandarin hybrids peel and pulp extracts. The mention « Traces » is used for compounds that could be detected but not quantitated (3 < S/N < 10) while « Detected » is used when 5-geranyloxy-7-methoxycoumarin was identified in the samples.

		Eureka lemon		Meyer lemon		Rough lemon		Volkamer lemon	
		Peel	Pulp	Peel	Pulp	Peel	Pulp	Peel	Pulp
Coumarins		Traces	Traces	Traces	Traces				
Umbelliferone		Traces				0.91 ± 0.43	0.14 ± 0.03	0.70 ± 0.16	0.23 ± 0.07
Osthols									
Aurapten									
Epoxyaurapten									
Limettin									
5-geranyloxy-7-methoxycoumarin		24.19 ± 5.24	Detected	36.38 ± 0.87	Detected	2.51 ± 0.39	Traces	4.54 ± 1.23	1.15 ± 0.29
Furanocoumarins									
Psoralen									
Bergaptol									
Bergapten		Traces	Traces	Traces	Traces	2.45 ± 0.60	0.71 ± 0.20	2.35 ± 0.24	0.43 ± 0.13
Isoimperatorin		Traces		4.97 ± 1.41				1.29 ± 0.22	
Oxypeucedanin		10.48 ± 3.60	0.28 ± 0.12	17.12 ± 5.22	0.38 ± 0.05	3.08 ± 0.15	0.34 ± 0.09	1.52 ± 0.23	0.24 ± 0.03
Oxypeucedanin hydrate		21.91 ± 12.56		Traces				1.49 ± 0.55	0.29 ± 0.07
Bergamottin		2.22 ± 1.30	0.13 ± 0.10	2.97 ± 0.69		0.63 ± 0.15	0.05 ± 0.02		
Epoxybergamottin									
6',7'-dihydroxybergamottin				Traces					Traces
Xanthotoxol									
Xanthotoxin									
Imperatorin									
Heraclein									
Heracleol									
8-geranyloxypsoralen		1.57 ± 0.86						0.80 ± 0.28	
		Traces						4.16 ± 1.44	Traces
		6.75 ± 4.27		Traces					
Isopimpinellin		0.82 ± 0.29		2.73 ± 0.64	Traces	1.92 ± 0.38	0.71 ± 0.24	1.57 ± 0.23	0.63 ± 0.13
Phellopterin		4.57 ± 2.17							
Byakangelicol		18.15 ± 7.39		0.92 ± 0.20		2.79 ± 0.63		0.72 ± 0.14	
Byakangelicin		36.64 ± 16.18				20.91 ± 5.39		14.11 ± 4.53	
Cnidilin						Traces			
Cnidicin									
TOTAL (mg.kg ⁻¹)		127.30	0.41	65.09	0.38	35.20	1.95	33.25	2.97

		Marrakech lime		Rangpur lime		Yellow Rangpur lime	
		Peel	Pulp	Peel	Pulp	Peel	Pulp
Coumarins							
Umbelliferone							
Osthols							
Aurapten		0.50 ± 0.21					
Epoxyaurapten		24.46 ± 7.87		17.90 ± 11.15	0.03 ± 0.00	0.92 ± 0.43	Traces
Limettin		4.40 ± 1.91					
5-geranyloxy-7-methoxycoumarin				47.32 ± 10.17	1.45 ± 0.47	19.44 ± 2.31	1.24 ± 0.16
Furanocoumarins							
Psoralen		0.24 ± 0.05					
Bergaptol							
Bergapten		1.40 ± 0.27		5.25 ± 0.73	0.99 ± 0.14	2.51 ± 0.19	0.89 ± 0.21
Isoimperatorin				2.61 ± 0.65		1.22 ± 0.39	
Oxypeucedanin		11.38 ± 4.72	0.21 ± 0.04	25.66 ± 7.49	0.13 ± 0.01	10.14 ± 2.29	0.10 ± 0.01
Oxypeucedanin hydrate		1.72 ± 0.73		19.93 ± 3.20		Traces	2.72 ± 0.72
Bergamottin							
Epoxybergamottin				2.86 ± 0.33			Traces
6',7'-dihydroxybergamottin							
Xanthotoxol							
Xanthotoxin							
Imperatorin							
Heraclein							
Heracleol		3.50 ± 1.84					
8-geranyloxypsoralen		Traces					
Isopimpinellin		0.32 ± 0.10		4.96 ± 0.71	0.49 ± 0.09	3.77 ± 0.56	0.55 ± 0.05
Phellopterin		Traces		Traces		Traces	
Byakangelicol		9.54 ± 2.08		1.80 ± 0.42		2.82 ± 0.15	
Byakangelicin							
Cnidilin							
Cnidicin							
TOTAL (mg.kg ⁻¹)		57.46	0.21	128.29	3.09	43.54	2.78

Tables I. Concentration (in mg.kg⁻¹ fresh weight ± standard deviation) of the coumarins and the furanocoumarins in the lemons peel and pulp extracts. The mention « Traces » is used for compounds that could be detected but not quantitated (3 < S/N < 10) while « Detected » is used when 5-geranyloxy-7-methoxycoumarin was identified in the samples.

	Mexican lime		Giant Key lime		Copperhead lime		Excelsa	
	Peel	Pulp	Peel	Pulp	Peel	Pulp	Peel	Pulp
Coumarins								
Umbelliferone	3.04 ± 1.15	Traces	1.38 ± 0.51	Traces	0.85 ± 0.12	0.49 ± 0.18		0.24 ± 0.02
Osthil			0.21 ± 0.07	Traces	0.15 ± 0.04	Traces		
Aurapten		Traces	0.33 ± 0.21	Traces	0.17 ± 0.07	Traces	0.61 ± 0.18	0.09 ± 0.02
Epoxyaurapten		Traces					Traces	
Limettin	47.74 ± 12.59	1.42 ± 0.22	15.21 ± 5.77	Traces	14.59 ± 6.67	Traces	8.06 ± 0.89	1.10 ± 0.10
5-geranyloxy-7-methoxycoumarin	Detected	Detected	Detected	Detected	Detected	Detected	Detected	Detected
Furanocoumarins								
Psoralen								
Bergaptol								
Bergapten	6.08 ± 3.11	0.63 ± 0.08	0.70 ± 0.32	0.30 ± 0.08	0.40 ± 0.02	0.15 ± 0.06	4.92 ± 1.00	0.72 ± 0.15
Isoimperatorin	16.35 ± 3.09	1.11 ± 0.47	1.66 ± 0.72	0.92 ± 0.41	Traces		12.90 ± 4.98	Traces
Oxypeucedanin	56.89 ± 7.00	0.42 ± 0.11	21.71 ± 5.69	0.44 ± 0.07	16.59 ± 6.56	0.26 ± 0.05	81.05 ± 23.24	0.17 ± 0.03
Oxypeucedanin hydrate	24.77 ± 9.92	11.95 ± 5.41	4.08 ± 2.12	2.43 ± 1.71	1.86 ± 0.27	Traces	34.81 ± 12.83	0.45 ± 0.20
Bergamottin	16.05 ± 4.69	15.06 ± 7.70	44.62 ± 9.57	12.99 ± 4.58	23.97 ± 2.82	1.58 ± 1.14	29.04 ± 10.98	0.13 ± 0.06
Epoxybergamottin	Traces	Traces	Traces				117.29 ± 33.15	
6',7'-dihydroxybergamottin							37.10 ± 15.27	Traces
Xanthotoxin cluster								
Xanthotoxol		6.35 ± 1.05		1.42 ± 0.21		Traces		
Xanthotoxin	4.84 ± 3.11	0.72 ± 0.43		0.31 ± 0.12			0.20 ± 0.02	
Imperatorin	5.03 ± 2.01	6.64 ± 1.43	Traces	2.21 ± 0.76			4.33 ± 0.94	
Heraclenin	33.96 ± 2.75	0.97 ± 0.36	6.42 ± 2.68	0.72 ± 0.34	Traces	Traces	2.02 ± 0.12	Traces
Heracleol	7.88 ± 3.71	9.93 ± 4.43		2.04 ± 1.17			Traces	
8-geranyloxypsoralen	48.08 ± 10.96	13.34 ± 4.74	24.66 ± 10.18	15.09 ± 6.79	16.10 ± 4.38	12.62 ± 7.50	11.55 ± 3.57	Traces
Isopimpinellin cluster								
Isopimpinellin	50.76 ± 8.29	3.29 ± 1.46	24.68 ± 7.60	1.36 ± 0.64	1.34 ± 0.15	0.18 ± 0.10	3.09 ± 0.23	0.51 ± 0.08
Phellopterin	18.85 ± 6.74	1.35 ± 0.21	2.55 ± 0.77	1.29 ± 0.63	1.15 ± 0.33	Traces	10.82 ± 1.82	Traces
Byakangelicol	73.37 ± 7.21	Traces	23.33 ± 9.00	Traces	10.00 ± 1.87	Traces	41.63 ± 8.43	Traces
Byakangelicin	Traces	14.43 ± 4.47	Traces	Traces	Traces	Traces		
Cnidilin	47.71 ± 7.84	2.80 ± 1.22	9.75 ± 3.44	2.09 ± 1.12	2.37 ± 0.97	0.17 ± 0.03		
Cnidicin	4.83 ± 1.74	1.57 ± 0.41	1.04 ± 0.45	Traces	Traces	Traces	2.64 ± 0.49	
TOTAL (mg.kg ⁻¹)		466.23	92.31	182.00	45.95	89.37	16.34	405.18
								3.41

	Tahiti lime		Bears lime		Brazil sweet lime		Palestine sweet lime	
	Peel	Pulp	Peel	Pulp	Peel	Pulp	Peel	Pulp
Coumarins								
Umbelliferone						Traces		
Osthil						Traces	Traces	Traces
Aurapten	1.17 ± 0.20	0.25 ± 0.08	1.20 ± 0.41	0.30 ± 0.05	Traces			
Epoxyaurapten								
Limettin	359.33 ± 147.68	Traces	140.60 ± 45.93	Traces	25.35 ± 10.13	Traces	29.18 ± 4.70	Traces
5-geranyloxy-7-methoxycoumarin	Detected	Detected	Detected	Detected	Detected	Detected	Detected	Detected
Furanocoumarins								
Psoralen	0.33 ± 0.13		Traces					
Bergaptol								
Bergapten	288.49 ± 30.74	1.71 ± 0.49	173.22 ± 54.20	1.80 ± 1.28	1.26 ± 0.22	Traces	Traces	Traces
Isoimperatorin	1.63 ± 0.33	Traces	3.17 ± 0.69	Traces	Traces			
Oxypeucedanin	55.23 ± 11.68	1.09 ± 0.42	67.48 ± 10.88	1.00 ± 0.43	18.77 ± 6.47	0.25 ± 0.02	13.96 ± 4.72	0.32 ± 0.05
Oxypeucedanin hydrate	11.69 ± 4.20	1.15 ± 0.45	11.86 ± 3.54	1.08 ± 0.45	3.10 ± 0.37		2.74 ± 0.83	
Bergamottin	44.27 ± 14.75	19.76 ± 7.58	29.83 ± 21.82	9.75 ± 5.83	Traces	Traces		
Epoxybergamottin								
6',7'-dihydroxybergamottin								
Xanthotoxin cluster								
Xanthotoxol	4.61 ± 1.57		4.07 ± 0.46					
Xanthotoxin								
Imperatorin								
Heraclenin	5.64 ± 1.21		7.72 ± 0.50		1.77 ± 0.77		1.63 ± 0.73	
Heracleol					Traces			
8-geranyloxypsoralen	21.58 ± 4.21	16.41 ± 7.77	23.97 ± 2.60	8.10 ± 4.02				
Isopimpinellin cluster								
Isopimpinellin	87.20 ± 11.92	2.92 ± 1.21	57.16 ± 10.03	2.92 ± 1.35	1.22 ± 0.09	Traces	1.28 ± 0.17	Traces
Phellopterin	2.83 ± 0.66	Traces	3.28 ± 0.16	1.74 ± 0.97	6.67 ± 1.70		7.26 ± 1.56	
Byakangelicol	17.25 ± 3.76		13.80 ± 2.56					
Byakangelicin	1.91 ± 0.28	0.80 ± 0.22	3.51 ± 0.37	Traces	Traces			
Cnidilin		Traces						
Cnidicin								
TOTAL (mg.kg ⁻¹)		903.16	44.09	540.87	26.69	58.14	0.25	56.05
								0.32

	Alemow	
	Peel	Pulp
Coumarins		
Umbelliferone	1.35 ± 0.37	0.51 ± 0.25
Osthil		
Aurapten	51.64 ± 28.60	14.47 ± 4.12
Epoxyaurapten	48.84 ± 11.80	Traces
Limettin	84.71 ± 25.73	1.94 ± 0.23
5-geranyloxy-7-methoxycoumarin	Detected	Detected
Furanocoumarins		
Psoralen		
Bergaptol		
Bergapten	10.07 ± 2.43	1.04 ± 0.15
Isoimperatorin	36.78 ± 6.87	Traces
Oxypeucedanin	81.44 ± 17.26	
Oxypeucedanin hydrate	49.72 ± 13.98	0.50 ± 0.02
Bergamottin	4.73 ± 2.70	Traces
Epoxybergamottin	10.67 ± 1.52	
6',7'-dihydroxybergamottin	38.17 ± 6.42	Traces
Xanthotoxin cluster		
Xanthotoxol		1.00 ± 0.34
Xanthotoxin		
Imperatorin	23.92 ± 6.40	2.49 ± 0.95
Heraclenin	61.43 ± 8.20	1.02 ± 0.44
Heracleol	32.96 ± 5.69	1.73 ± 0.62
8-geranyloxypsoralen	15.18 ± 6.84	3.18 ± 0.82
Isopimpinellin cluster		
Isopimpinellin	4.85 ± 0.45	0.70 ± 0.12
Phellopterin	40.98 ± 5.30	4.50 ± 1.31
Byakangelicol	72.00 ± 12.56	1.79 ± 0.72
Byakangelicin	33.13 ± 8.43	13.46 ± 3.68
Cnidilin	13.89 ± 1.10	
Cnidicin	7.14 ± 1.05	Traces
TOTAL (mg.kg ⁻¹)		723.60
		48.33

Tables J. Concentration (in mg.kg⁻¹ fresh weight ± standard deviation) of the coumarins and the furanocoumarins in the limes peel and pulp extracts. The mention « Traces » is used for compounds that could be detected but not quantitated (3 < S/N < 10) while « Detected » is used when 5-geranyloxy-7-methoxycoumarin was identified in the samples.

		Castagnaro bergamot	
		Peel	Pulp
Coumarins			
Umbelliferone			
Osthol		0.39 ± 0.10	0.10 ± 0.02
Aurapten		0.20 ± 0.09	0.19 ± 0.09
Epoxyaurapten		10.72 ± 1.81	
Limettin		25.69 ± 3.66	1.30 ± 0.46
5-geranyloxy-7-methoxycoumarin		Detected	Detected
Furanocoumarins			
Psoralen		0.47 ± 0.13	0.57 ± 0.49
Bergaptol			8.57 ± 1.02
Bergapten		388.21 ± 105.05	51.56 ± 43.53
Isoimperatorin		Traces	0.88 ± 0.17
Oxypeucedanin		0.80 ± 0.52	0.25 ± 0.01
Oxypeucedanin hydrate			
Bergamottin		54.70 ± 38.91	49.67 ± 31.26
Epoxybergamottin			
6',7'-dihydroxybergamottin			
Bergapten cluster			
Xanthotoxin cluster			
Xanthotoxol			
Xanthotoxin			
Imperatorin			
Heracelinin			
Heraclenol			Traces
8-geranyloxysoralen			Traces
Isopimpinellin cluster			
Isopimpinellin			
Phellopterin			
Byakangelicol			
Byakangelicin			
Cnidilin			
Cnidicin			
TOTAL (mg.kg ⁻¹)		483.75	113.39

Table K. Concentration (in mg.kg⁻¹ fresh weight ± standard deviation) of the coumarins and the furanocoumarins in the bergamot peel and pulp extracts. The mention « Traces » is used for compounds that could be detected but not quantitated (3 < S/N < 10) while « Detected » is used when 5-geranyloxy-7-methoxycoumarin was identified in the samples.

		Mountain		Yuzu		Khasi		Nasnaran	
		Peel	Pulp	Peel	Pulp	Peel	Pulp	Peel	Pulp
Coumarins									
Umbelliferone						Traces		1.76 ± 0.40	
Osthol	0.36 ± 0.06	0.22 ± 0.05	1.88 ± 0.44	20.64 ± 11.65	3.60 ± 1.21	0.14 ± 0.03	0.05 ± 0.02	1.39 ± 0.34	0.13 ± 0.04
Aurapten				17.54 ± 2.43					
Epoxyaurapten	4.17 ± 1.06	0.93 ± 0.37	4.59 ± 1.08	Detecte	Detecte	5.04 ± 0.25	0.58 ± 0.10	12.58 ± 3.13	1.30 ± 0.26
Limettin									
5-geranyloxy-7-methoxycoumarin									
Furanocoumarins									
Psoralen									
Bergaptol	3.72 ± 0.95	0.70 ± 0.20	21.91 ± 2.42	Traces	3.53 ± 0.11	0.44 ± 0.06	17.66 ± 7.38	17.66 ± 7.38	6.62 ± 2.07
Bergapten				Traces	Traces		44.11 ± 10.19	44.11 ± 10.19	1.56 ± 0.48
Isoimperatorin				0.39 ± 0.22	0.30 ± 0.08	1.34 ± 0.20	0.13 ± 0.01	278.71 ± 74.61	40.54 ± 8.66
Oxypeucedanin	2.37 ± 0.34	0.08 ± 0.01						135.44 ± 36.17	2.92 ± 1.01
Oxypeucedanin hydrate	0.32 ± 0.08	0.20 ± 0.04						55.94 ± 21.99	6.94 ± 2.40
Bergamottin								61.01 ± 15.30	14.51 ± 3.34
Epoxybergamottin									10.26 ± 3.71
6',7'-dihydroxybergamottin									4.96 ± 1.68
									101.36 ± 16.35
									12.82 ± 5.90
Xanthotoxin cluster									
Xanthotoxol						1.39 ± 0.67	0.21 ± 0.11	Traces	
Xanthotoxin									
Imperatorin						6.13 ± 1.60	Traces		
Heracalenin						15.62 ± 1.75	Traces		
Heracleol							1.84 ± 0.76		2.26 ± 0.75
8-geranyloxypsoralen									
Isopimpinellin cluster									
Isopimpinellin	2.33 ± 0.39	0.61 ± 0.21	2.61 ± 0.67	0.46 ± 0.19	13.14 ± 3.02	0.39 ± 0.03	6.70 ± 1.28		0.88 ± 0.12
Phellopterin						4.05 ± 0.74	Traces		
Byakangelicol									
Byakangelicin									
Cnidilin									
Cnidicin									
TOTAL (mg.kg ⁻¹)	13.27	2.74	70.25	4.36	50.38	3.64	757.20		65.16

		Mandarin x citron hybrid	
		Peel	Pulp
Coumarins			
Umbelliferone			
Osthol		0.80 ± 0.22	0.08 ± 0.02
Aurapten			
Epoxyaurapten		2.79 ± 0.08	0.48 ± 0.04
Limettin		Detecte	Detecte
5-geranyloxy-7-methoxycoumarin			
Furanocoumarins			
Psoralen			
Bergaptol			
Bergapten		2.38 ± 0.26	0.46 ± 0.07
Isoimperatorin		1.00 ± 0.13	
Oxypeucedanin		2.14 ± 0.44	0.12 ± 0.01
Oxypeucedanin hydrate			
Bergamottin		Traces	
Epoxybergamottin		Traces	
6',7'-dihydroxybergamottin			
Xanthotoxin cluster			
Xanthotoxol			
Xanthotoxin			
Imperatorin			
Heracalenin			
Heracleol			
8-geranyloxypsoralen		Traces	
Isopimpinellin cluster			
Isopimpinellin		1.45 ± 0.20	0.36 ± 0.06
Phellopterin			
Byakangelicol		1.00 ± 0.35	
Byakangelicin		Traces	
Cnidilin			
Cnidicin			
TOTAL (mg.kg ⁻¹)		11.56	1.50

Tables L. Concentration (in mg.kg⁻¹ fresh weight ± standard deviation) of the coumarins and the furanocoumarins in the unknown origin hybrids peel and pulp extracts. The mention « Traces » is used for compounds that could be detected but not quantitated (3 < S/N < 10) while « Detected » is used when 5-geranyloxy-7-methoxycoumarin was identified in the samples.